Remarks

The Applicant respectfully requests reconsideration of this application in light of this remark. In this response, claims 1, 5, 6, 10, 11, 12, 19 – 21, and 23 are amended. New claims 24 – 26 have been added. No new matter has been added with the amendments and new claims. Hence, claims 1 – 26 are pending in this application after the filing of this response.

35 U.S.C. §112 Rejections

The Office has rejected claims 1 – 9 under 35 U.S.C. §112 as purportedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. The Office states that, regarding claim 1, it is unclear whether "directory" and "inbound" gatekeepers are resource management gatekeepers, gateway resources, or another type of gateway. The Office has requested further clarification and explanation.

Claim 1 has been amended to more clearly recite the directory gatekeeper and the inbound gatekeeper. Specifically, claim 1 recites in part "another communication device communicatively coupled to an inbound gatekeeper, the inbound gatekeeper operable to send a routing request to the directory gatekeeper in response to receiving a call setup request and direct the call to an outbound gateway resource determined by the directory gatekeeper".

Applicant believes that as amended, claims 1 – 9 particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. As such, Applicant requests that the rejections under 35 U.S.C. §112 be withdrawn. However, if the Examiner would like further explanation, the Examiner is encouraged to call the undersigned.

Prior Art Rejections - Introduction

Before addressing each claim rejection in detail, an embodiment of the present Application is described.

An embodiment of the present invention relates to a distributed network architecture that can increase the ability to scale VoIP networks for large-scale deployments. Application, [0022]. In this regard, a hierarchical distributed implementation splits resource management functionality from other gatekeeper functions. Id., [0023]. For example a directory gatekeeper manages routing tables, while resource management gatekeepers manage specific outbound

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gateway resources. Id., [0025]. In response to a call setup request, an inbound gatekeeper sends a routing request to a directory gatekeeper requesting a route for the requested call. Id., [0027]. Responsive to the routing request, the directory gatekeeper selects a route corresponding to one of a plurality of resource management gatekeepers. Id., [0025]. Each resource management gatekeeper manages one or more outbound gateway resources. Id. The selected resource management gatekeeper checks for an available outbound gateway resource to terminate the requested call by checking availability reported to the selected resource management gatekeeper by each of the outbound gateway resources. Id., [0028]. If an available outbound gateway resource is identified, the directory gatekeeper notifies the inbound gatekeeper and the inbound gatekeeper directs the call to the available outbound gateway resource. Id., [0027], [0030].

A.   Rejection of claims 1 – 7, 10 – 16, and 19 – 23 under 35 U.S.C. §103(a)

The Office has rejected claims Claims 1 – 7, 10 – 16, and 19 – 23 under 35 U.S.C. §103(a) as being unpantentable over Bennefeld et al. (EP 1014633), hereinafter referred to as Bennefeld in view of Wolff (US 6,067,545). Applicant traverses these rejections. Applicant has amended claims 1, 5, 6, 10, 11, 12, 19 – 21, and 23 for purposes of clarification.

Amended claim 1 recites, in part, "each outbound gateway resource periodically reports the outbound gateway resource's availability to the … associated resource management gatekeeper", "the inbound gatekeeper operable to send **a routing request to the directory gatekeeper in response to receiving a call setup request**", "selecting one of the routes and sending a resource request to the resource management gatekeeper corresponding to the selected route to **initiate the call through an outbound gateway resource**", "**in response to receiving the resource request**, the selected resource management gatekeeper **checks outbound gateway resource availability to determine an available outbound gateway resource**", and "the directory gatekeeper **notifies the inbound gatekeeper of the available outbound gateway resource**, to cause the inbound gatekeeper to direct the call through the available outbound gateway resource."

By contrast, Bennefeld relates to distributing subscriber load among Gatekeepers during the Gatekeeper **discovery and registration process**, rather than in response to receiving a call setup request. Bennefeld, Abstract.

Wolff relates to a client/server system in which multiple servers handle resource I/O requests from clients. Wolff, col. 6, ll. 6 – 17. Wolff describes different approaches to load rebalancing among the servers. In each approach, rebalancing is carried out by clients that are "aware", meaning that the client has functionality, among others, to select an alternate path to direct **future** I/O requests to a particular server (i.e., CFN). Wolff, col. 13, ll. 45 – 54.

Two embodiments of Wolff for rebalancing are called passive client load rebalancing and active load rebalancing. Both passive client load balancing, described in Figs. 7A – 7B, and active load rebalancing, described in Figs. 7C – 7D, involve a load-balancer module 190 on aware clients that respond to a rebalance message (a redirect packet 700 or 710) from server(s). Id., col. 24, l. 51 – col. 25, l. 38. Specifically, a load-balance driver 168 executing on the server(s) determines if the current I/O utilization has exceeded a load-balance utilization threshold and, if so, sends a message to an aware-client to either redirect I/O for a particular resource to a specific node or to redirect I/O to any suitable node. Id., col. 11, ll. 52 – 58. The message from the load-balance driver 168 is received by the load-balancer module 190 of the client, which causes a name drive module 194 of the client to redirect **future** I/O requests to a particular server (CFN). Id., col. 13, ll. 44 – 54.

Wolff also describes a scenario in which the aware client can detect delays by servers and initiate rebalancing based on the detected delays. Id., col. 26, ll. 24 – 31. However, rebalancing in this scenario is performed as in the passive and active load rebalancing embodiments; i.e., the client redirects future I/O requests to another server. Id. In addition, although the name driver module 194 periodically checks for a fail-back condition (i.e., a server recovers), this check is not in response to an I/O request from the client. Id., col. 19, ll. 11 – 15.

In contrast to Wolff, claim 1 is directed to determining an available outbound gateway resource for terminating a call **in response to receiving a call setup request**. In this regard, embodiments determine outbound gateway resources for terminating a call on a "per-call" basis. As such, availability of outbound gateway resources managed by a selected resource management gatekeeper is checked each time in response to a call setup request (unless there are certain excluded gatekeepers as discussed in paragraph [0028] and claims 25 – 26).

For at least the foregoing reasons, Bennefeld and Wolff fail to teach or suggest at least one element of claim 1. As such, neither Bennefeld nor Wolff, either separately or in combination, teach or suggest all elements of claim 1. Therefore, Applicant submits that claim 1

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and its dependent claims are allowable over Bennefeld and Wolff. Applicant respectfully requests allowance of claims 1 – 9.

Independent claims 10 and 19, as amended, recite elements similar to those of claim 1. For example, claim 10 recites, in part "**in response to receiving the request to initiate the call**: sending a routing request to a directory gatekeeper to request a route for terminating the call; determining, by the directory gatekeeper, a list of possible routes for terminating the call;…querying a selected resource management gatekeeper to determine availability of outbound gateway resources…based on outbound gateway resource availability periodically reported to the selected resource management gatekeeper…". Claim 19 recites, in part, "**in response to receiving the request to initiate the call**, determining a list of possible routes for terminating the call, wherein each route corresponds to a management gatekeeper managing a plurality of gateway resources; selecting a route from the list of possible routes; querying a first management gatekeeper associated with the selected route, to cause the first management gatekeeper to determine availability of outbound gateway resources associated with the selected route".

For at least the same reasons as claim 1, Bennefeld and Wolff fail to teach or suggest all the elements of claims 10 and 19. As such, neither Bennefeld nor Wolff, either separately or in combination, teach or suggest all of the elements of claims 10 and 19. Therefore, Applicant submits that claims 10 and 19 and their respective dependent claims are allowable over Bennefeld and Wolff. Applicant respectfully requests allowance of claims 10 – 23.

B.   Rejection of claims 8 – 9 and 17 – 18 under 35 U.S.C. §103(a)

The Office has rejected Claims 8, 9, 17, and 18 under 35 U.S.C. §103(a) as being unpantentable over Bennefeld in view of Wolff, in further view of Harada et al. (US No. 5,956,339), hereinafter referred to as Harada. Applicant traverses these rejections.

Because claims 8 – 9 and 17 – 18 include all the limitations of their respective base claims, and because a prima facie case has not been set forth rejecting claims 1 and 10 based on Harada, Applicant submits that claims 8 – 9 and 17 – 18 are allowable for at least the reasons given above with respect to base claims 1 and 10.

For at least these reasons, Bennefeld, Wolff, and Harada fail to teach or suggest all the claims limitations of claims 8 – 9 and 17 – 18. As such claims 8 – 9 and 17 – 18 are believed to be allowable and such allowance is requested.

New Claims 24 – 26

Support for the subject matter of new claims 24 – 26 can be found in the specification as filed at least in paragraphs [0024] – [0028].

Independent claim 24 recites, in part, "a directory gatekeeper, … in response to a routing request received from the inbound gatekeeper, …requests an outbound gateway resource from a resource management gatekeeper associated with a selected route, and … wherein the selected resource management gatekeeper checks for an available outbound gateway resource among the plurality of outbound gateway resources in the resource zone of the selected resource management gatekeeper, … wherein if an available outbound gateway resource is not identified in the resource zone, the directory gatekeeper requests resources from another resource management gatekeeper in another zone by selecting another route corresponding to the other resource management gatekeeper."

Claim 24 includes elements similar to those of claim 1 that are neither taught nor suggested by Bennefeld or Wolff. As such, for at least the above reasons, claims 24 – 26 are believed to be allowable over Bennefeld, Wolff and Harada.

In addition, new claim 25 recites, in part, "each resource management gatekeeper is operable to exclude certain outbound gateway resources during checking for available outbound gateway resources." Claim 26 recites, in part, "each resource management gatekeeper is operable to exclude certain gateways when the associated zone is associated with a given carrier and the requested call is associated with a given area code." Applicant submits that the elements of claims 25 and 26 are neither taught nor suggested by the prior art of record.

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Conclusion

Applicant respectfully submits that the foregoing remarks have addressed all the issues raised in the Office action, have overcome the rejections, and that the pending claims are in condition for allowance. Accordingly, Applicant requests that the rejections be withdrawn and that a Notice of Allowance be issued forthwith.

This Amendment is submitted contemporaneously with a petition for a two-month extension of time in accordance with 37 CFR § 1.136(a). Accordingly, please charge Deposit Account No. 50-3199 in the amount of $450.00, for a two-month extension of time fee. The Office is further directed to charge Deposit Account No. 50-3199 in the amount of $790.00 for the Request for Continued Examination fee under 37 CFR §1.17(e). The Applicant believes no further fees or petitions are required. However, if any such petitions or fees are necessary, please consider this a request therefore and authorization to charge Deposit Account No. 50-3199 accordingly.

Request for a Telephone Interview

If the Office believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 720-377-0709. No fees are believed due with this Amendment; however, the Commissioner is authorized to debit Deposit Account No. 50-3199 for any additional fee(s) or underpayment(s) under 37 CFR 1.16 and 1.17 or credit any overpayments.

Dated: September 12, 2007   Respectfully submitted,

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